AMENDMENTS TO THE CLAIMS

What is claimed is:

1. (Currently Amended) A synthetic apolipoprotein-E mimicking polypeptide comprising an amino acid sequence ~~selected from the group of~~

~~(i) X-Y-Arg-Arg-Y-Y-X-X-Y-Y-Arg-Y-Y-Arg-X-Y-Y-X (SEQ ID NO: 208) or the reverse sequence thereof,~~

~~(ii) Arg-Arg-Y-Y-X-X-Y-Y-Arg-Y-Y-Arg-X-Y (SEQ ID NO: 209) or the reverse sequence thereof,~~

~~(iii) Y-Y-X-X-Y-Y-Arg-Y-Y-Arg-X-Y-Y-X or the reverse sequence thereof, and~~

~~(iv)~~ X-Y-Arg-Arg-Y-Y-X-X-Y-Y-Arg-Y-Y-Arg (SEQ ID NO: 210) ~~or the reverse sequence thereof~~,

wherein X is glycine, threonine, serine or alanine,

wherein Y is a hydrophobic amino acid,

wherein the polypeptide comprises an acetyl group at the N-terminus and an amide group at the C-terminus, and

wherein the polypeptide consists of a single domain.

2. (Original) The polypeptide of claim 1, wherein Y is selected from the group consisting of phenylalanine, tyrosine, leucine, isoleucine, valine, and tryptophan.

3. (Original) The polypeptide of claim 1, wherein the polypeptide comprises from about 10 amino acids to about 30 amino acids in length.

4. (Currently Amended) The polypeptide of claim 1, wherein the polypeptide comprises a sequence of consecutive amino acids selected from the group of ~~SEQ ID NOS:1-207~~ SEQ ID NOS: 2, 4, 5, 8, 10-11, 13, 18, 21, 110-121, 127, 129, 131, 133, 137,

141, 145, 150, 155-160, 167, 168, 194-196, and 203-204.

5. (Original) The polypeptide of claim 1, wherein the polypeptide comprises the sequence Gly-Ile-Arg-Arg-Phe-Leu-Gly-Ser-Ile-Trp-Arg-Phe-Ile-Arg-Ala-Phe-Tyr-Gly (SEQ ID NO:5).

6. (Original) The polypeptide of claim 1, which is a recombinant polypeptide.

7. (Original) The polypeptide of claim 1, which is a synthetic polypeptide.

8. (Original) The polypeptide of claim 1, which is a peptidomimetic.

9. (Original) An isolated nucleic acid encoding the polypeptide of claim 1.

10. (Original) The nucleic acid of claim 9, wherein the nucleic acid comprises DNA, RNA and/or cDNA.

11. (Original) A vector comprising the nucleic acid of claim 9.

12. (Original) A host cell comprising the nucleic acid of claim 9.

13. (Original) The host cell of claim 12, which is eukaryotic or prokaryotic.

14. (Original) The polypeptide of claim 1, wherein the polypeptide enhances binding of low-density lipoprotein (LDL) or very low density lipoprotein (VLDL) to a cell.

15. (Original) The polypeptide of claim 1, wherein the polypeptide enhances degradation of low-density lipoprotein (LDL) or very low density lipoprotein (VLDL) by a cell.

16. (Original) A composition comprising the polypeptide of claims 1 and a pharmaceutically acceptable carrier.

17. (Original) The composition of claim 16, wherein the carrier comprises dimyristoylphosphatidyl (DMPC), phosphate buffered saline or a multivesicular

liposome.

18. (Original) A monoclonal antibody that specifically binds to the polypeptide of claim 1.

19. (Original) A method for enhancing LDL binding to a cell, the method comprising contacting the cell with the polypeptide of claim 1.

20. (Original) A method for enhancing LDL and VLDL binding to a cell in a subject, the method comprising administering the polypeptides of claim 1, or a composition thereof, to the subject in an amount effective to increase LDL and VLDL binding to the cell of the subject.

21. (Original) A method for reducing serum cholesterol in a subject, the method comprising the step of administering to the subject an amount of the polypeptides of claim 1, or a composition thereof, effective to increase binding of LDL and/or VLDL to cells in the subject, thereby reducing serum cholesterol in the subject.

22. (Original) A method for treating a subject with coronary artery disease, the method comprising the step of administering to the subject an amount of the polypeptides of claim 1, or a composition thereof, to thereby treat the subject.

23. (Original) A method for treating a subject with dysbetalipoproteinemia, the method comprising the step of administering to the subject an amount of the polypeptide of claim 1, or a composition thereof, to thereby treat the subject.

24. (Original) A method for reducing the risk of myocardial infarction in a subject, the method comprising the step of administering to the subject an amount of the polypeptide of claim 1, or a composition thereof, to thereby treat the subject.

25. (Original) A method for treating atherosclerosis in a subject, the method comprising the step of administering to the subject the polypeptide of claim 1, or a composition thereof.

26. (Original) A recombinant cell comprising the nucleic acid of claim 9.

27. (Original) A recombinant cell producing the polypeptide of claim 1.

28. (Original) A transgenic, non-human subject comprising the nucleic acid of claim 9.

29. (Original) The transgenic subject of claim 28, wherein the subject is an animal or a plant.

30. (Original) A transgenic non-human subject expressing the polypeptide of claim 1.

31. (Original) The method of claim 19, wherein the administration is oral, parenteral, by intramuscular injection, by intraperitoneal injection, transdermal, extracorporeal, topical, intranasal or by inhalant.

32. (Original) The method of claim 19, wherein the subject is a human subject.

33. (Original) The method of claim 19, wherein the subject is mammal is a mouse, a rat, a rabbit, a cow, a sheep, a pig, or a primate.

34. (Original) The method of claim 33, wherein the primate is a human, a monkey, an ape, a chimpanzee, or an orangutan.